# A Novel Data Dissemination Model for Organic Data Flows

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# Abstract

The number of computing devices of the IoT are expected to grow exponentially. To address the communication needs of the IoT, research is being done to develop new networking architectures and to extend existing architectures. An area that lacks attention in these efforts is the emphasis on utilisation of omnipresent local data. There are a number of issues (e.g., underutilisation of local resources and dependence on cloud based data) that need to be addressed to exploit the benefits of utilising local data. We present a novel data dissemination model, called the Organic Data Dissemination (ODD) model to utilise the omni-present data around us, where devices deployed with the ODD model are able to operate even without the existence of networking infrastructure. The realisation of the ODD model requires innovations in many different area including the areas of opportunistic communications, naming of information, direct peer-to-peer communications and reinforcement learning. This paper focuses on highlighting the usage of the ODD model in real application scenarios and the details of the architectural components.

Keywords

Internet of Things, Opportunistic networks, Organic Data Flows, Reinforcement Algorithms